Wiring Diagrams

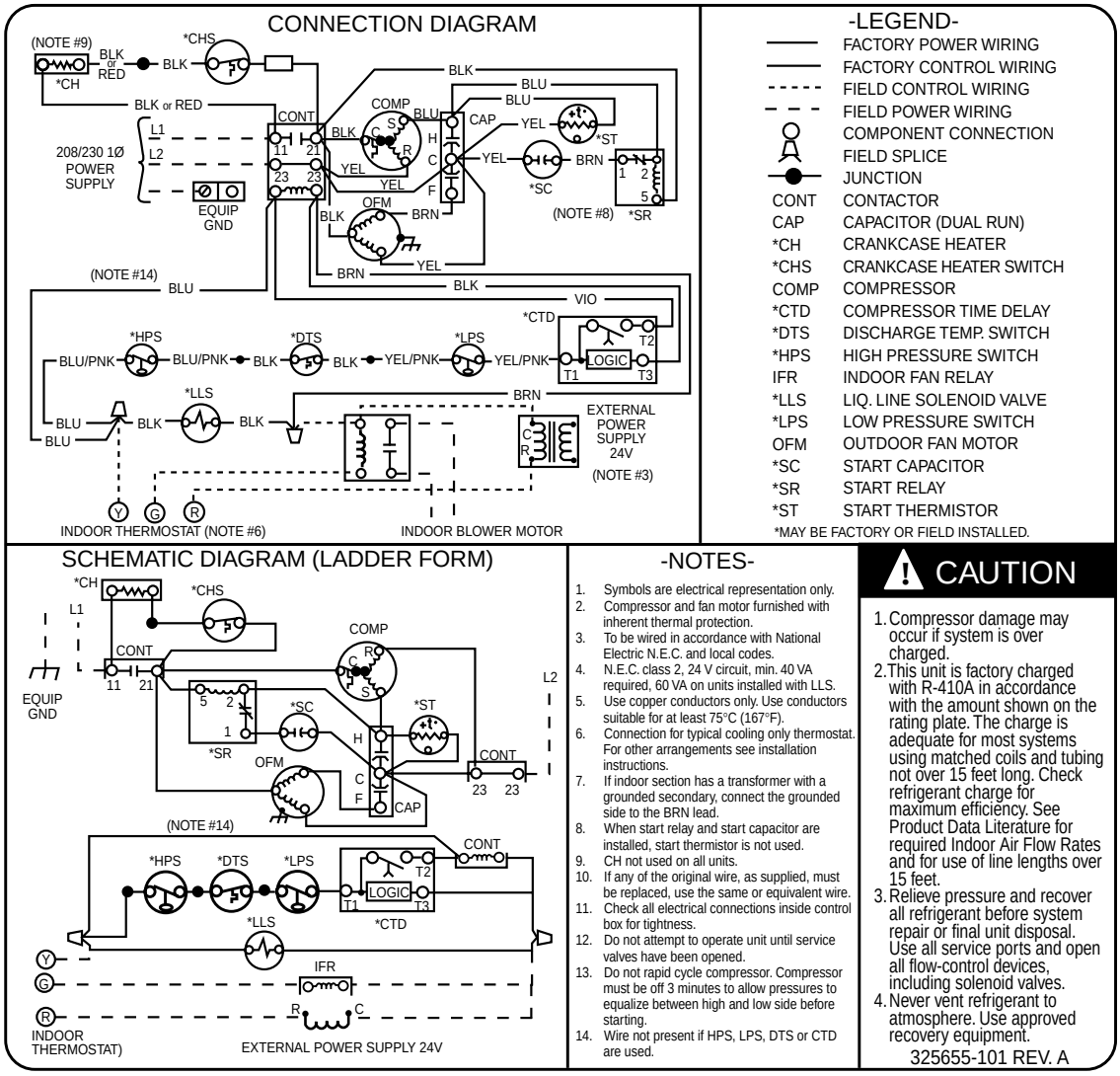
CONNECTION DIAGRAM
-LEGEND-
FACTORY POWER WIRING
FACTORY CONTROL WIRING
FIELD CONTROL WIRING
FIELD POWER WIRING
COMPONENT CONNECTION
FIELD SPLICE
JUNCTION
CONT CONTACTOR
CAP CAPACITOR (DUAL RUN)
*CH CRANKCASE HEATER
*CHS CRANKCASE HEATER SWITCH
COMP COMPRESSOR
*CTD COMPRESSOR TIME DELAY
*DTS DISCHARGE TEMP. SWITCH
*HPS HIGH PRESSURE SWITCH
IFR INDOOR FAN RELAY
*LLS LIQ. LINE SOLENOID VALVE
*LPS LOW PRESSURE SWITCH
OFM OUTDOOR FAN MOTOR
*SC START CAPACITOR
*SR START RELAY
*ST START THERMISTOR
*MAY BE FACTORY OR FIELD INSTALLED.
208/230 1Ø POWER SUPPLY
EQUIP GND
EXTERNAL POWER SUPPLY 24V
(NOTE #3)
(NOTE #8)
(NOTE #9)
(NOTE #14)
INDOOR THERMOSTAT (NOTE #6)
INDOOR BLOWER MOTOR
SCHEMATIC DIAGRAM (LADDER FORM)
INDOOR THERMOSTAT)
EXTERNAL POWER SUPPLY 24V
-NOTES-
1. Symbols are electrical representation only.
2. Compressor and fan motor furnished with inherent thermal protection.
3. To be wired in accordance with National Electric N.E.C. and local codes.
4. N.E.C. class 2, 24 V circuit, min. 40 VA required, 60 VA on units installed with LLS.
5. Use copper conductors only. Use conductors suitable for at least 75°C (167°F).
6. Connection for typical cooling only thermostat. For other arrangements see installation instructions.
7. If indoor section has a transformer with a grounded secondary, connect the grounded side to the BRN lead.
8. When start relay and start capacitor are installed, start thermistor is not used.
9. CH not used on all units.
10. If any of the original wire, as supplied, must be replaced, use the same or equivalent wire.
11. Check all electrical connections inside control box for tightness.
12. Do not attempt to operate unit until service valves have been opened.
13. Do not rapid cycle compressor. Compressor must be off 3 minutes to allow pressures to equalize between high and low side before starting.
14. Wire not present if HPS, LPS, DTS or CTD are used.
CAUTION
1. Compressor damage may occur if system is over charged.
2. This unit is factory charged with R-410A in accordance with the amount shown on the rating plate. The charge is adequate for most systems using matched coils and tubing not over 15 feet long. Check refrigerant charge for maximum efficiency. See Product Data Literature for required Indoor Air Flow Rates and for use of line lengths over 15 feet.
3. Relieve pressure and recover all refrigerant before system repair or final unit disposal. Use all service ports and open all flow-control devices, including solenoid valves.
4. Never vent refrigerant to atmosphere. Use approved recovery equipment.
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Fig. 1—38ETG; 38EZG 018-048; 38ESG 024-048 208/230v, 1 Phase, 60 Hertz

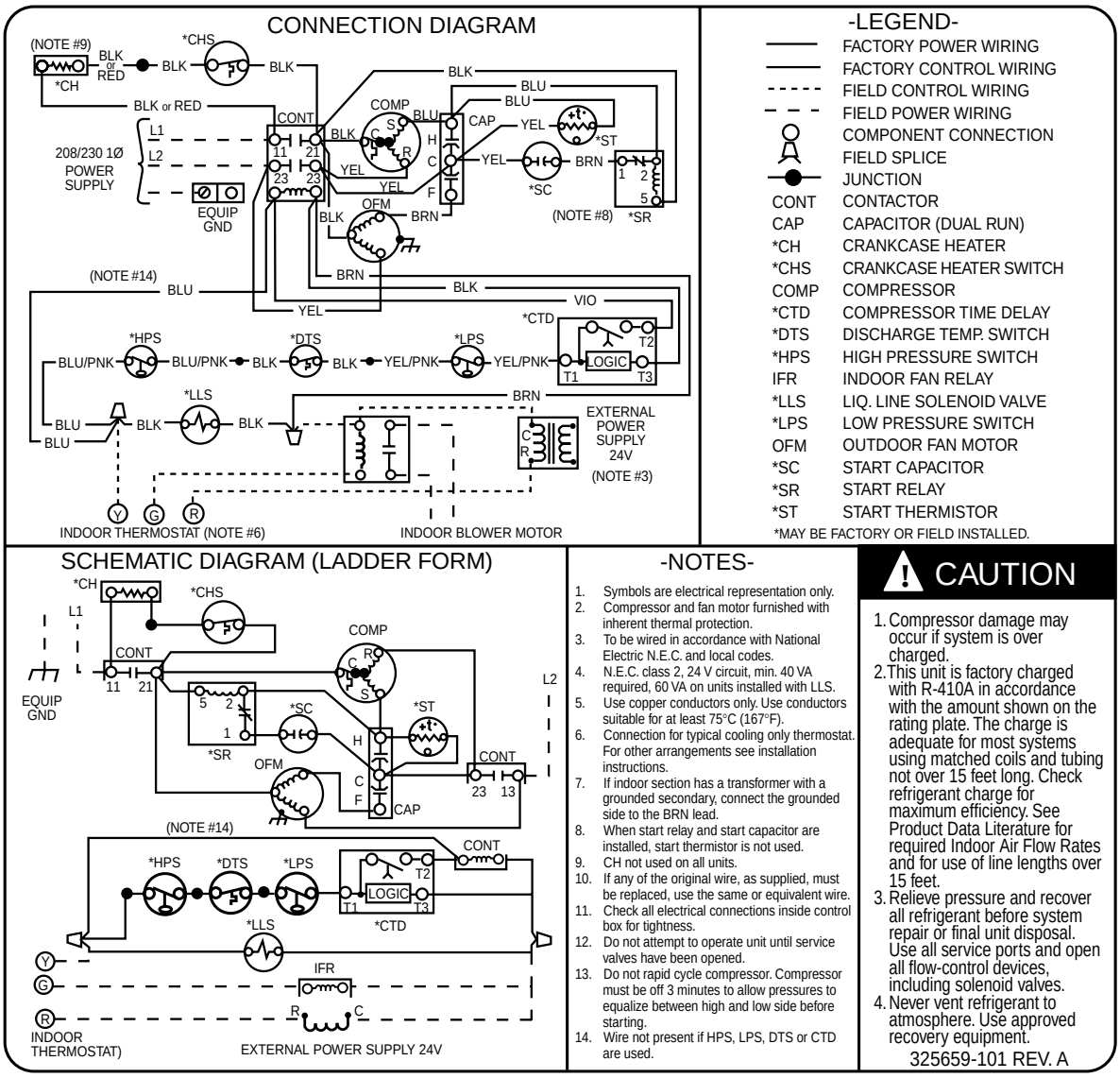
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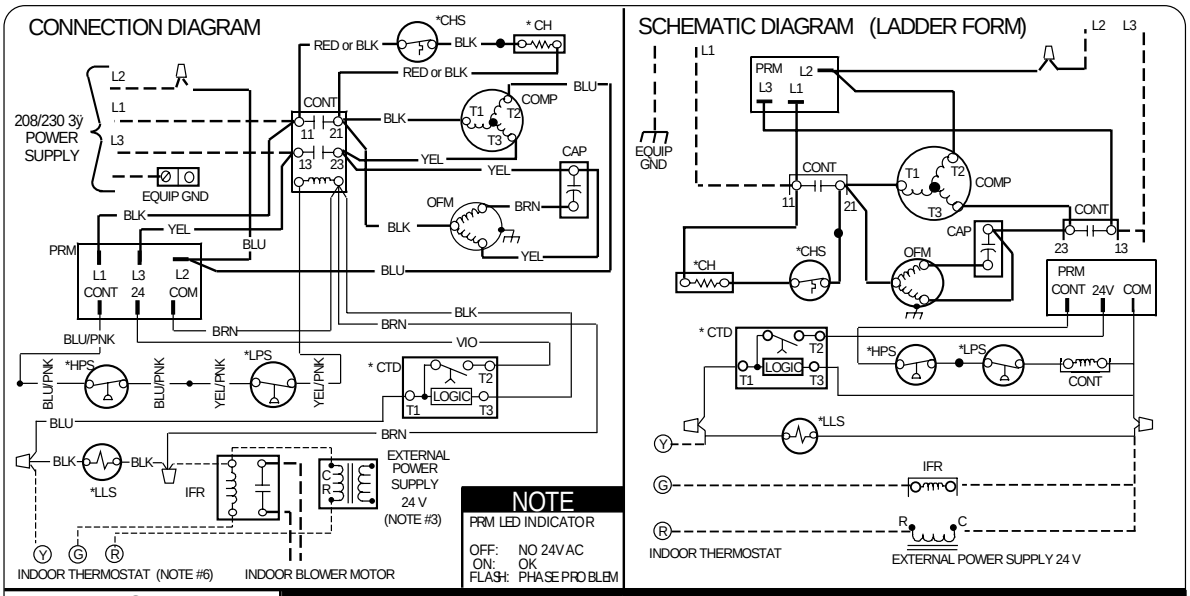
Fig. 2—38ESG, 38ETG, 38EZG 060
208/230v, 1 Phase, 60 Hertz



-LEGEND-

———	FACTORY POWER WIRING
———	FACTORY CONTROL WIRING
- - - - -	FIELD CONTROL WIRING
— — —	FIELD POWER WIRING
○	COMPONENT CONNECTION
	FIELD SPLICE
—●—	JUNCTION
CONT	CONTACTOR
CAP	CAPACITOR (DUAL RUN)
*CH	CRANKCASE HEATER
*CHS	CRANKCASE HEATER SWITCH
COMP	COMPRESSOR
*CTD	COMPRESSOR TIME DELAY
*HPS	HIGH PRESSURE SWITCH
IFR	INDOOR FAN RELAY
*LLS	LIQ. LINE SOLENOID VALVE
*LPS	LOW PRESSURE SWITCH
OFM	OUTDOOR FAN MOTOR
PRM	PHASE ROTATION MONITOR

* MAY BE FACTORY OR FIELD INSTALLED.

⚠ CAUTION

1. Compressor damage may occur if system is overcharged.
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12. Do not attempt to operate unit until service valves have been opened.
13. Do not rapid cycle compressor. Compressor must be off 3 minutes to allow pressures to equalize between high and low side before starting.
14. Wire not present if HPS, or LPS are used.
15. It is imperative to connect 3ÿ field power to unit with correct phasing. The Phase Rotation Monitor will not allow the contactor to be energized if the phasing is not correct. If phasing is reversed, simply interchange any two of the three power connections on field side.

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Fig. 3—38EZG 036–060
208/230v, 3 Phase, 60 Hertz

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization • Maintenance
- Installation Overview • Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

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Book 1 4 Tab 2a 3a PC 101 Catalog No. 533-80091 Printed in U.S.A. Form 38ESG-1W Pg 4 1-03 Replaces: New